

Fig. 1

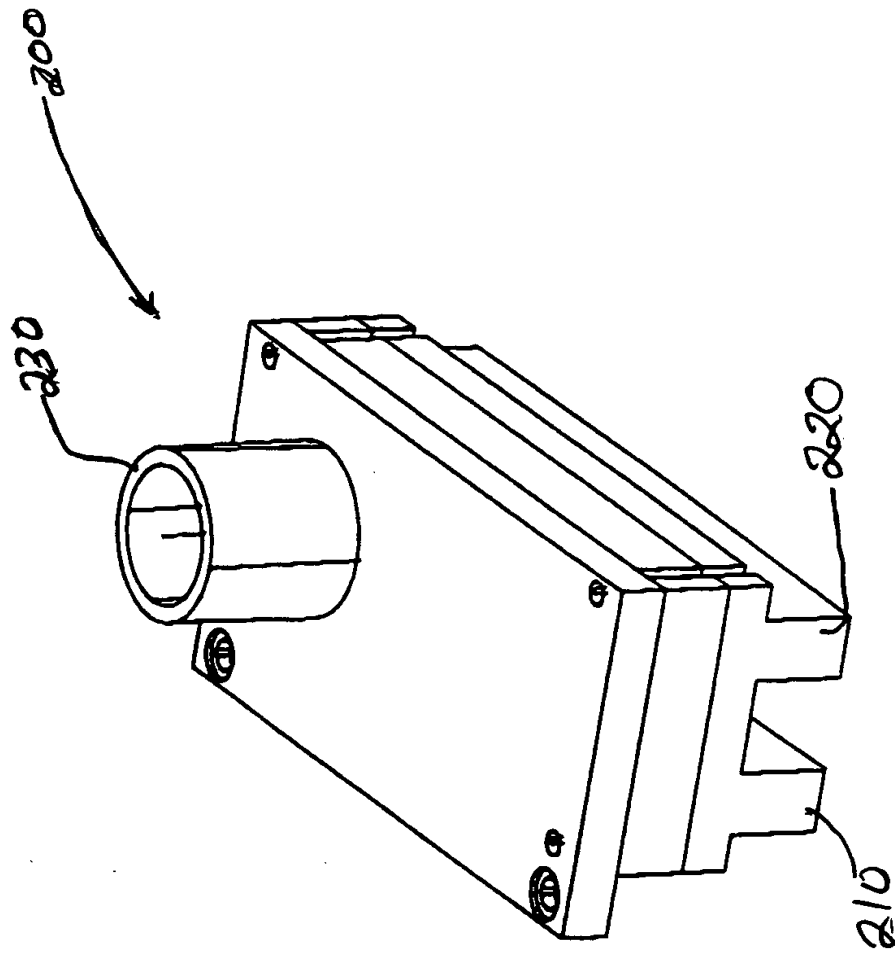


Fig. 2

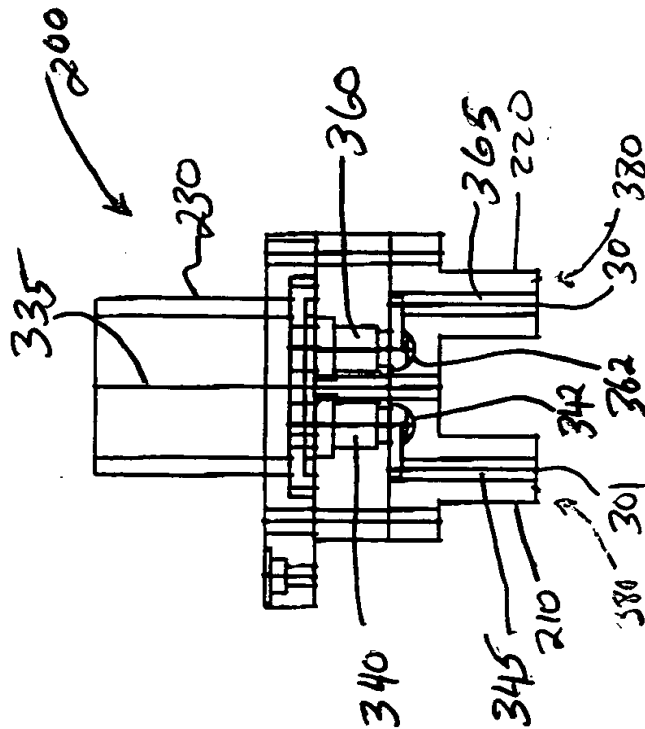


Fig. 3

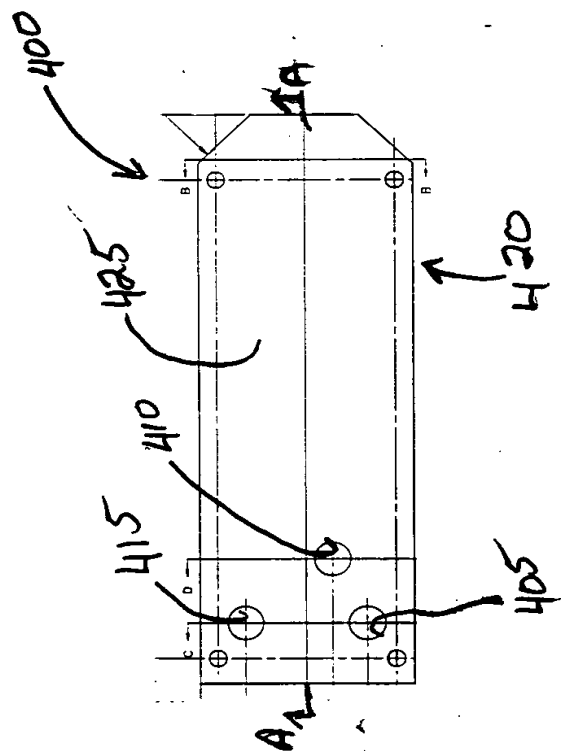


Fig 4

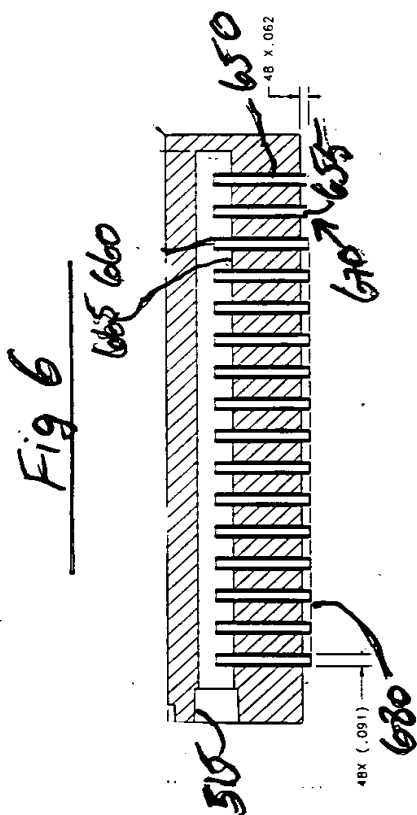


Fig 6

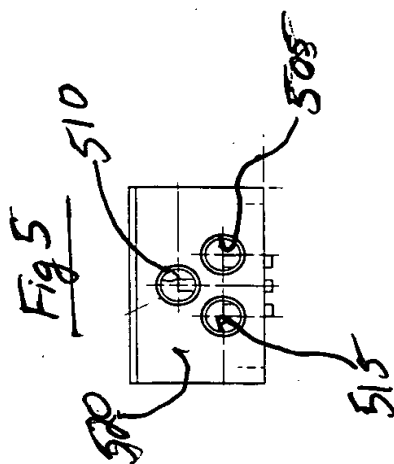


Fig 5

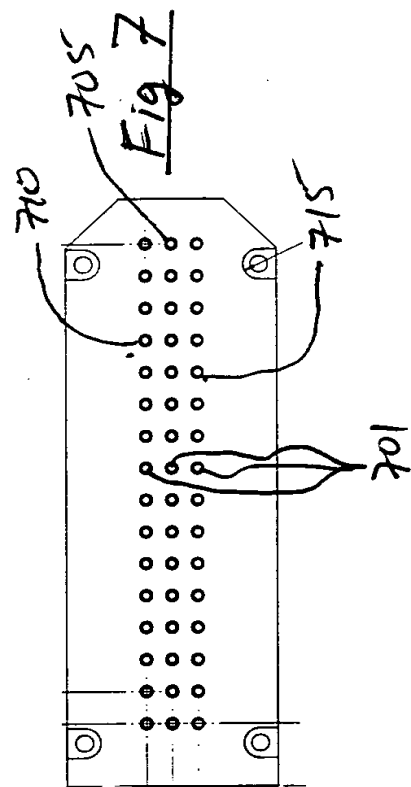


Fig 7

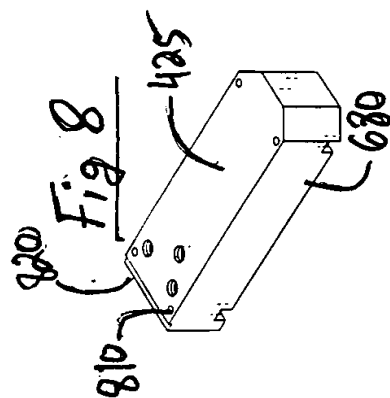


Fig 8

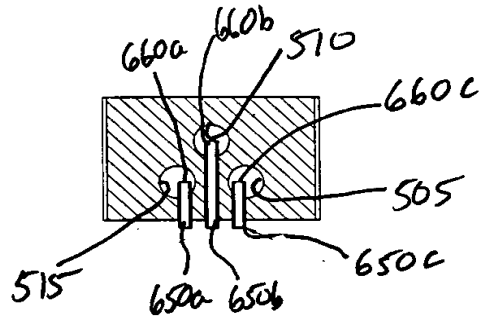


Figure 9

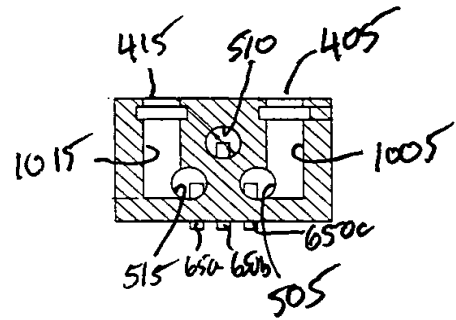


Figure 10

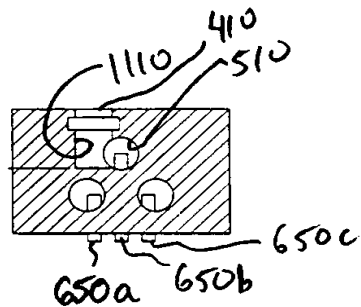


Figure 11

Fig 12A



Fig 13A

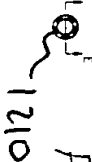
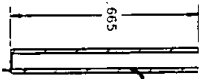


Fig 12B



Fig 13B



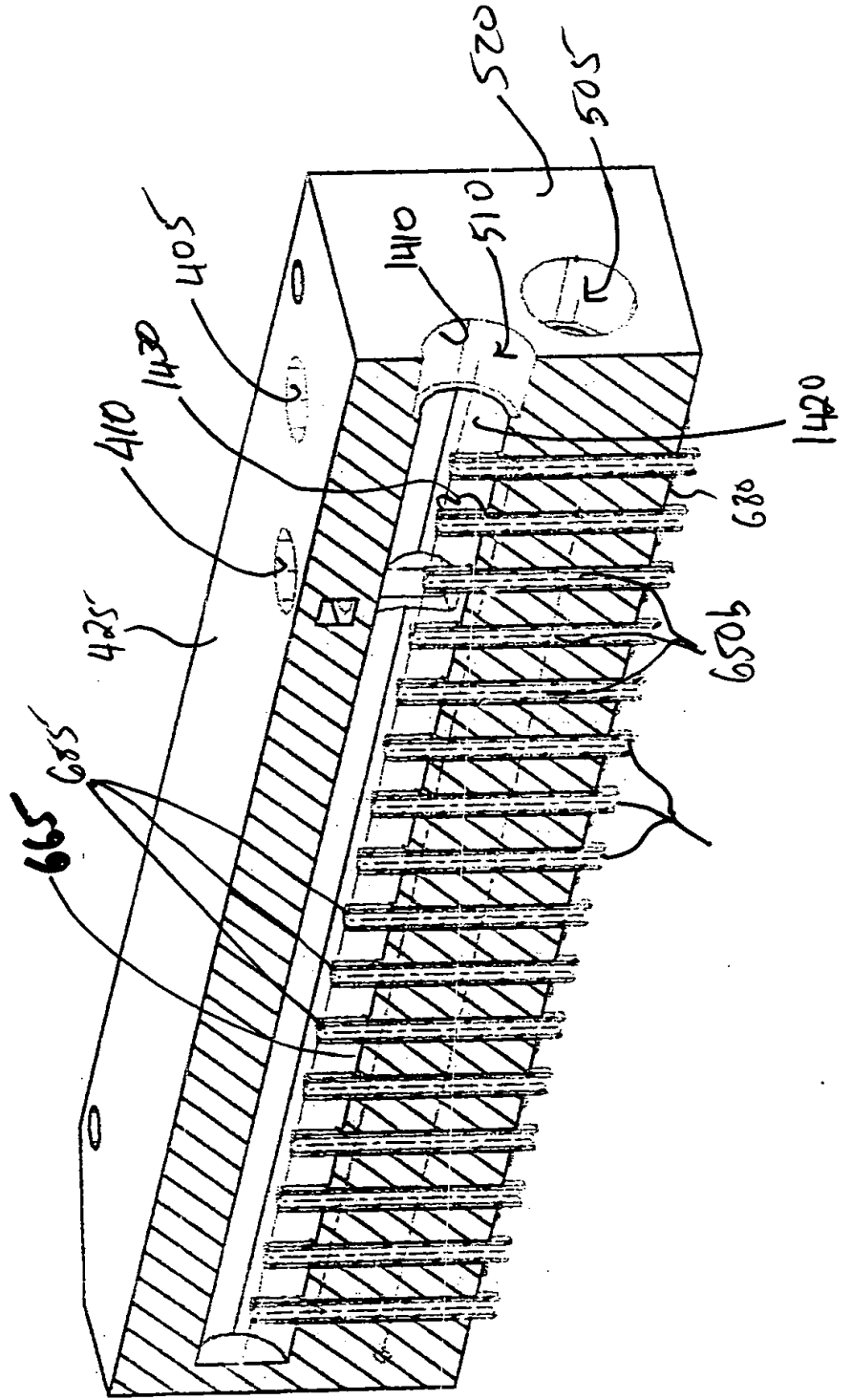


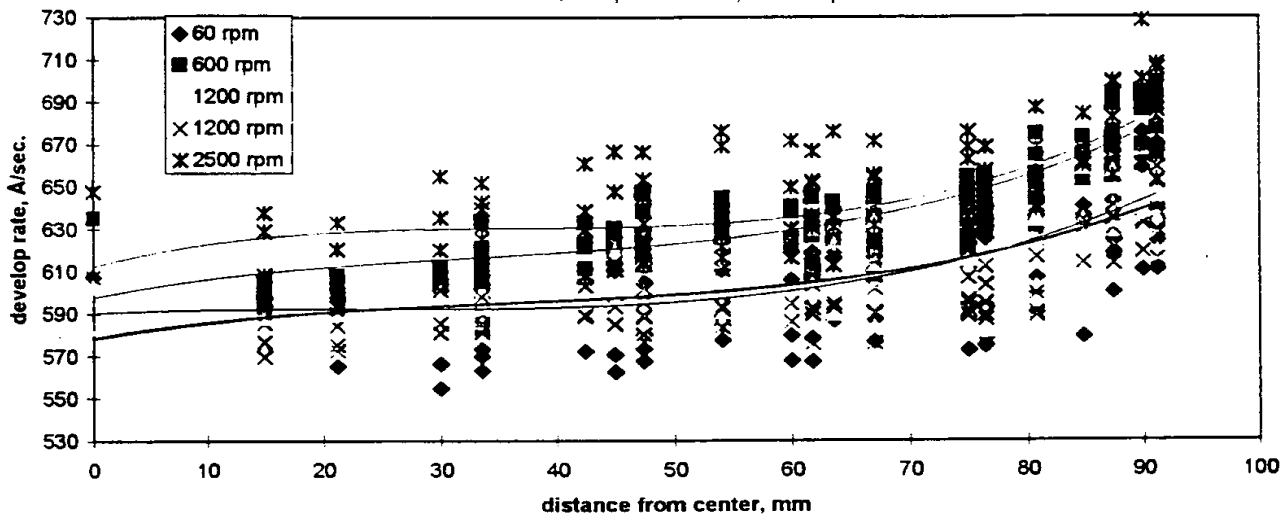
Figure 14

005220" 2742960

Fig. 15

Develop Rates At 121 Wafer Locations, Develop Arm Offset=0mm

TOK 9; dose=12; develop time=10sec.



Develop Rates At 121 Wafer Locations, Develop Arm Offset=5mm

TOK 9; dose=12; develop time=10sec.

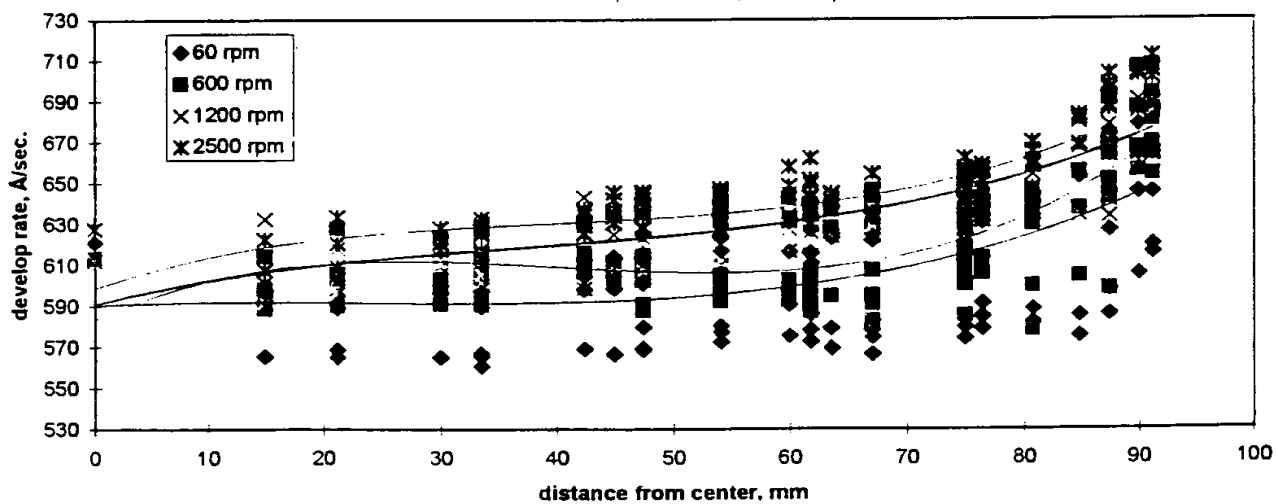
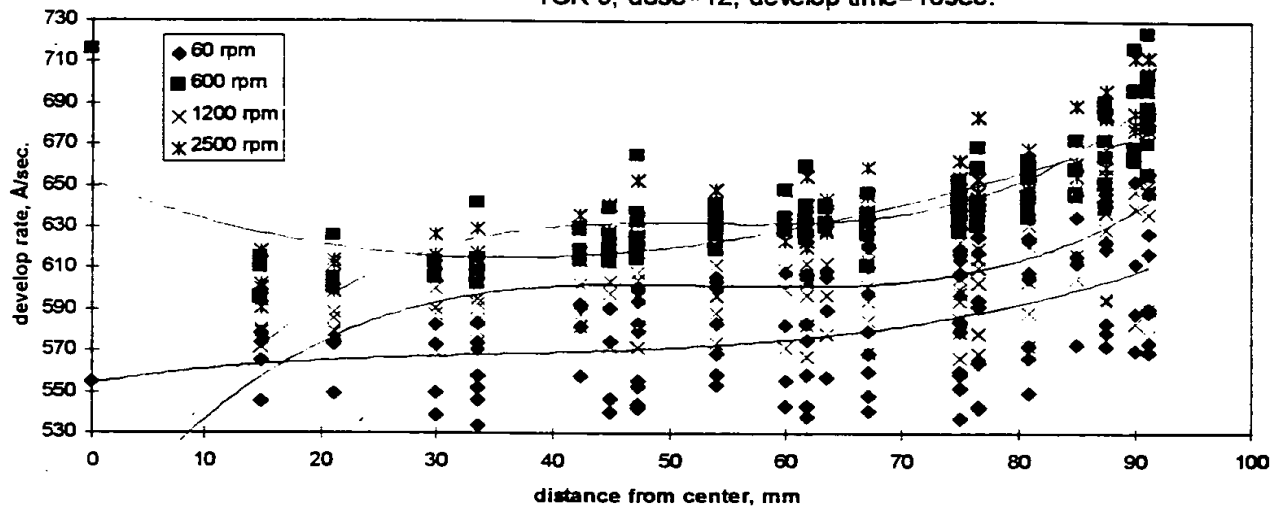


Fig. 16

Fig 17

Develop Rates At 121 Wafer Locations, Develop Arm Offset=10mm

TOK 9; dose=12; develop time=10sec.



Develop Rates At 121 Wafer Locations, Develop Arm Offset=20mm

TOK 9; dose=12; develop time=10sec.

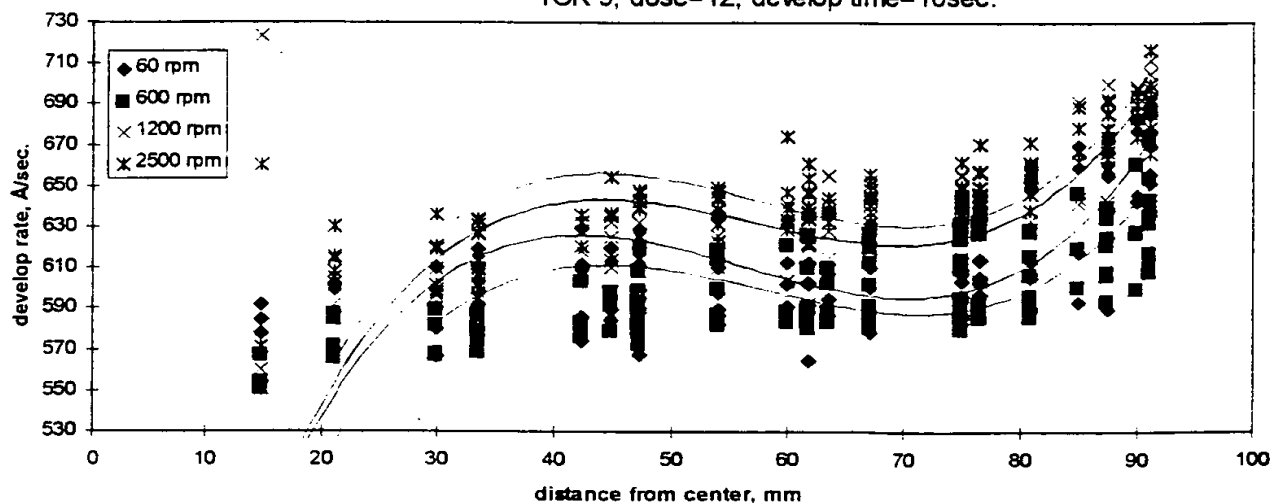
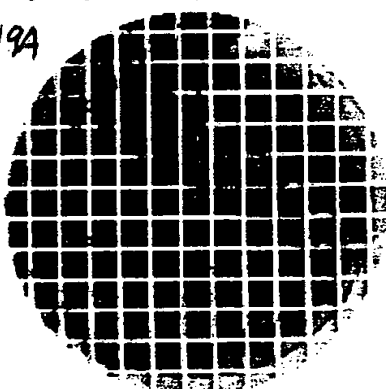


Fig 18

IPEC Develop Rate Maps for Arm Offset=0mm

Spin speed 60 rpm

Fig 19A



705.0 A.
690.0 A.
675.0 A.
660.0 A.
645.0 A.
630.0 A.
615.0 A.
600.0 A.
585.0 A.
570.0 A.

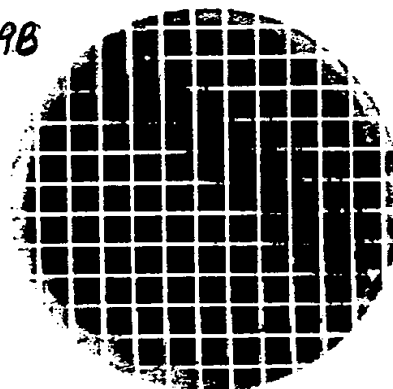
Xpos = 108
Ypos = -43
Value = -0.0 A.

- Histogram -
Total: 0: 25209
MinLimit: -207.0 A.
MaxLimit: 1237.9 A.
0.0<100.0> 0.0 %
601.9 A. - 121 pts



Spin speed 600 rpm

Fig 19B



730.0 A.
715.0 A.
700.0 A.
685.0 A.
670.0 A.
655.0 A.
640.0 A.
625.0 A.
610.0 A.
595.0 A.

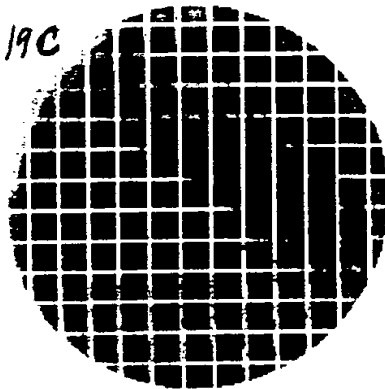
Xpos = 61
Ypos = -38
Value = 676.7 A.

- Histogram -
Total: 0: 21876
MinLimit: 680.0 A.
MaxLimit: 730.0 A.
0.0<97.9> 2.1 %
699.2 A. - 68 pts



Spin speed 1200 rpm

Fig 19C



710.0 A.
695.0 A.
680.0 A.
665.0 A.
650.0 A.
635.0 A.
620.0 A.
605.0 A.
590.0 A.
575.0 A.

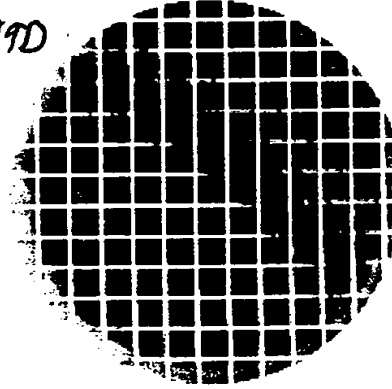
Xpos = 6
Ypos = -18
Value = 577.7 A.

- Histogram -
Total: 0: 25221
MinLimit: -199.3 A.
MaxLimit: 1227.7 A.
0.0<100.0> 0.0 %
664.3 A. - 139 pts



Spin speed 2500 rpm

Fig 19D



740.0 A.
725.0 A.
710.0 A.
695.0 A.
680.0 A.
665.0 A.
650.0 A.
635.0 A.
620.0 A.
605.0 A.

Xpos = 109
Ypos = 110
Value = -0.0 A.

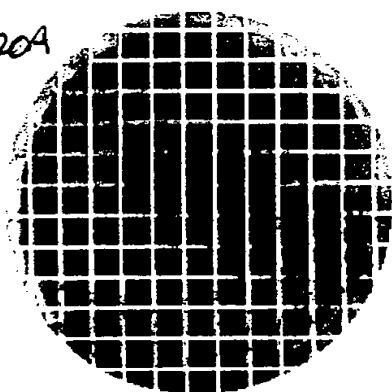
- Histogram -
Total: 0: 27878
MinLimit: -213.1 A.
MaxLimit: 1258.3 A.
0.0<100.0> 0.0 %
628.5 A. - 2184 pts



IPEC Develop Rate Maps for Arm Offset=5mm

Spin speed 60 rpm

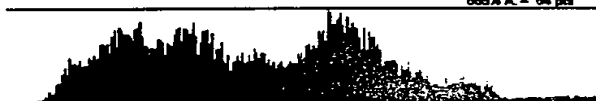
Fig. 20A



700.0 A.
685.0 A.
670.0 A.
655.0 A.
640.0 A.
625.0 A.
610.0 A.
595.0 A.
580.0 A.
565.0 A.

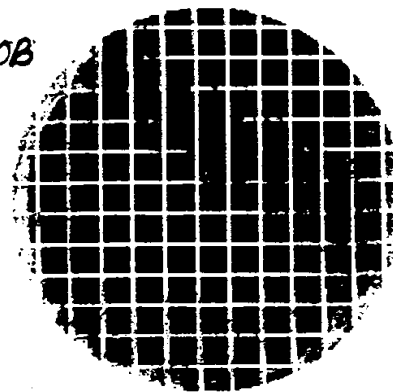
Xpos = 107
Ypos = 8
Value = -0.0 A.

- Histogram -
Total: 0: 28308
MinLimit: -204.7 A.
MaxLimit: 1238.7 A.
0.0<100.0> 0.0 %
695.4 A. - 84 pts



Spin speed 600 rpm

Fig. 20B



720.0 A.
705.0 A.
690.0 A.
675.0 A.
660.0 A.
645.0 A.
630.0 A.
615.0 A.
600.0 A.
585.0 A.

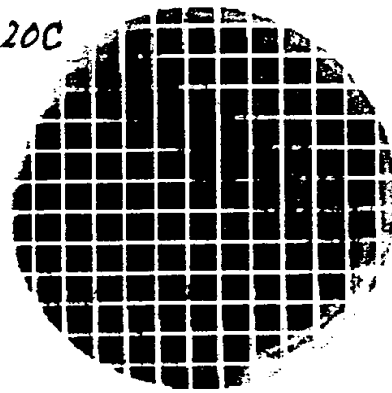
Xpos = 98
Ypos = -14
Value = -0.0 A.

- Histogram -
Total: 0: 24408
MinLimit: 232.5 A.
MaxLimit: 1001.5 A.
3.7<95.3> 0.0 %
652.0 A. - 122 pts



Spin speed 1200 rpm

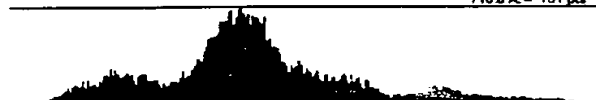
Fig. 20C



730.0 A.
715.0 A.
700.0 A.
685.0 A.
670.0 A.
655.0 A.
640.0 A.
625.0 A.
610.0 A.
595.0 A.

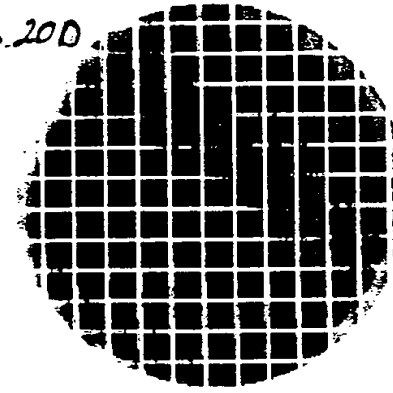
Xpos = 33
Ypos = -56
Value = 644.8 A.

- Histogram -
Total: 0: 28053
MinLimit: -213.7 A.
MaxLimit: 1284.2 A.
0.0<100.0> 0.0 %
710.8 A. - 181 pts



Spin speed 2500 rpm

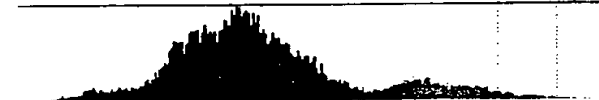
Fig. 20D



740.0 A.
725.0 A.
710.0 A.
695.0 A.
680.0 A.
665.0 A.
650.0 A.
635.0 A.
620.0 A.
605.0 A.

Xpos = 1
Ypos = 1
Value = 631.8 A.

- Histogram -
Total: 0: 28058
MinLimit: -217.9 A.
MaxLimit: 1300.8 A.
0.0<100.0> 0.0 %
754.9 A. - 41 pts

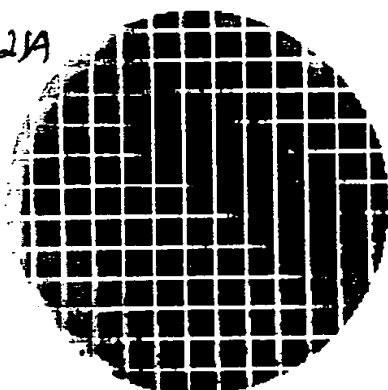


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IPEC Develop Rate Maps for Arm Offset=10mm

Spin speed 60 rpm

Fig 21A



680.0 A.
685.0 A.
690.0 A.
695.0 A.
700.0 A.
705.0 A.
710.0 A.
715.0 A.
720.0 A.

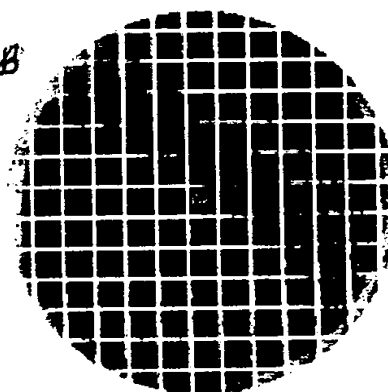
Xpos = 83
Ypos = 73
Value = -0.0 A.

-Histogram-
Total: 0.28297
MinLimit: 198.2 A.
MaxLimit: 1181.5 A.
0.0<100.0> 0.0 %
998.5 A. - 0 pts



Spin speed 600 rpm

Fig 21B



740.0 A.
745.0 A.
750.0 A.
755.0 A.
760.0 A.
765.0 A.
770.0 A.
775.0 A.
780.0 A.

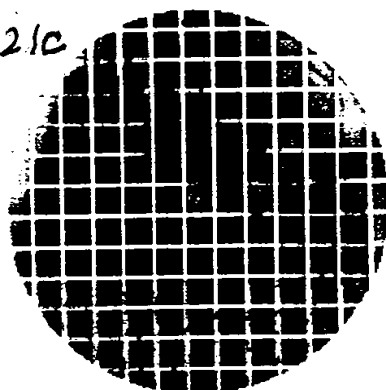
Xpos = 68
Ypos = 9
Value = 681.0 A.

-Histogram-
Total: 0.21884
MinLimit: 680.0 A.
MaxLimit: 740.0 A.
0.3<87.4> 2.3 %
771.3 A. - 6 pts



Spin speed 1200 rpm

Fig 21C



710.0 A.
715.0 A.
720.0 A.
725.0 A.
730.0 A.
735.0 A.
740.0 A.
745.0 A.
750.0 A.

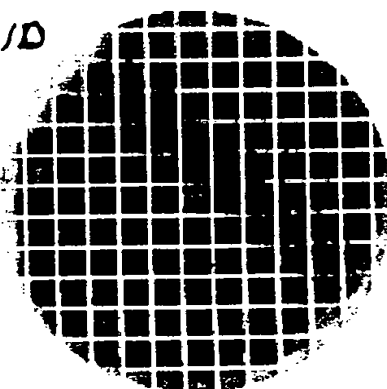
Xpos = 61
Ypos = -96
Value = -0.0 A.

-Histogram-
Total: 0.28248
MinLimit: 195.8 A.
MaxLimit: 1223.4 A.
0.0<100.0> 0.0 %
998.0 A. - 10 pts



Spin speed 2500 rpm

Fig 21D



730.0 A.
735.0 A.
740.0 A.
745.0 A.
750.0 A.
755.0 A.
760.0 A.
765.0 A.
770.0 A.

Xpos = 95
Ypos = 90
Value = -0.0 A.

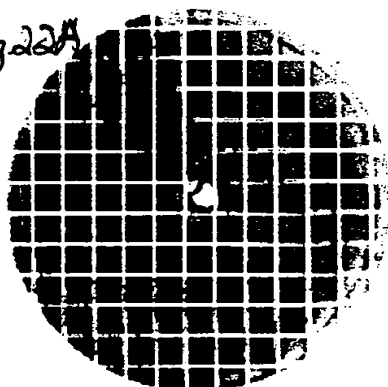
-Histogram-
Total: 0.28048
MinLimit: 214.7 A.
MaxLimit: 1287.5 A.
0.0<100.0> 0.0 %
977.5 A. - 20 pts



IPEC Develop Rate Maps for Arm Offset=20mm

Spin speed 60 rpm

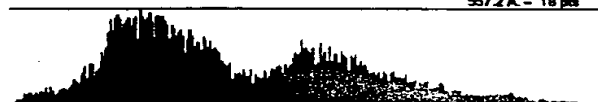
Fig 22A



710.0 A
685.0 A
680.0 A
645.0 A
650.0 A
635.0 A
620.0 A
605.0 A
590.0 A
575.0 A

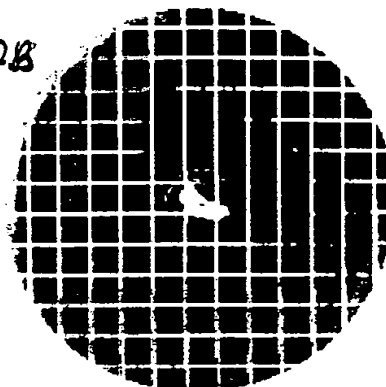
Xpos = 8
Ypos = -104
Value = -0.0 A.

-Histogram-
Total: 0: 25278
MinLimit: -210.1 A
MaxLimit: 1241.7 A
0.0-100.0% 0.0 %
557.2 A - 18 pts



Spin speed 600 rpm

Fig 22B



700.0 A
685.0 A
670.0 A
655.0 A
640.0 A
625.0 A
610.0 A
605.0 A
590.0 A
585.0 A

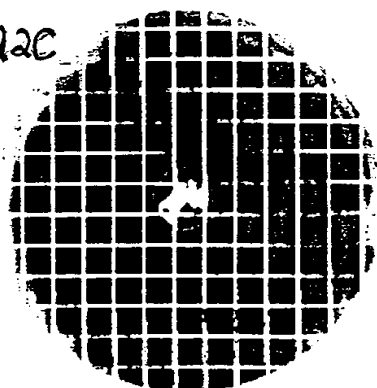
Xpos = 1
Ypos = 3
Value = -0.0 A.

-Histogram-
Total: 0: 28081
MinLimit: -194.8 A
MaxLimit: 1206.7 A
0.0-100.0% 0.0 %
778.7 A - 23 pts



Spin speed 1200 rpm

Fig 22C



730.0 A
715.0 A
700.0 A
685.0 A
670.0 A
655.0 A
640.0 A
625.0 A
610.0 A
595.0 A

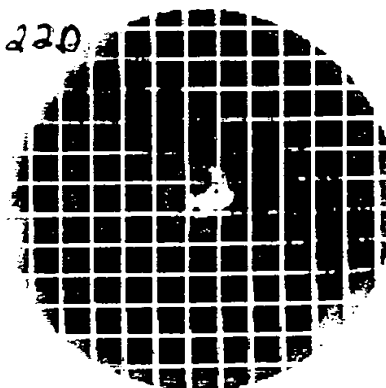
Xpos = 89
Ypos = 94
Value = -0.0 A.

-Histogram-
Total: 0: 21965
MinLimit: 680.0 A
MaxLimit: 730.0 A
0.1-95.1% 2.8 %
623.8 A - 38 pts



Spin speed 2500 rpm

Fig 22D



740.0 A
725.0 A
710.0 A
695.0 A
680.0 A
665.0 A
650.0 A
635.0 A
620.0 A
605.0 A

Xpos = 105
Ypos = 34
Value = -0.0 A.

-Histogram-
Total: 0: 27868
MinLimit: -239.1 A
MaxLimit: 1297.8 A
0.0-100.0% 0.0 %
728.8 A - 5 pts

